

REPLACEMENT SHEET

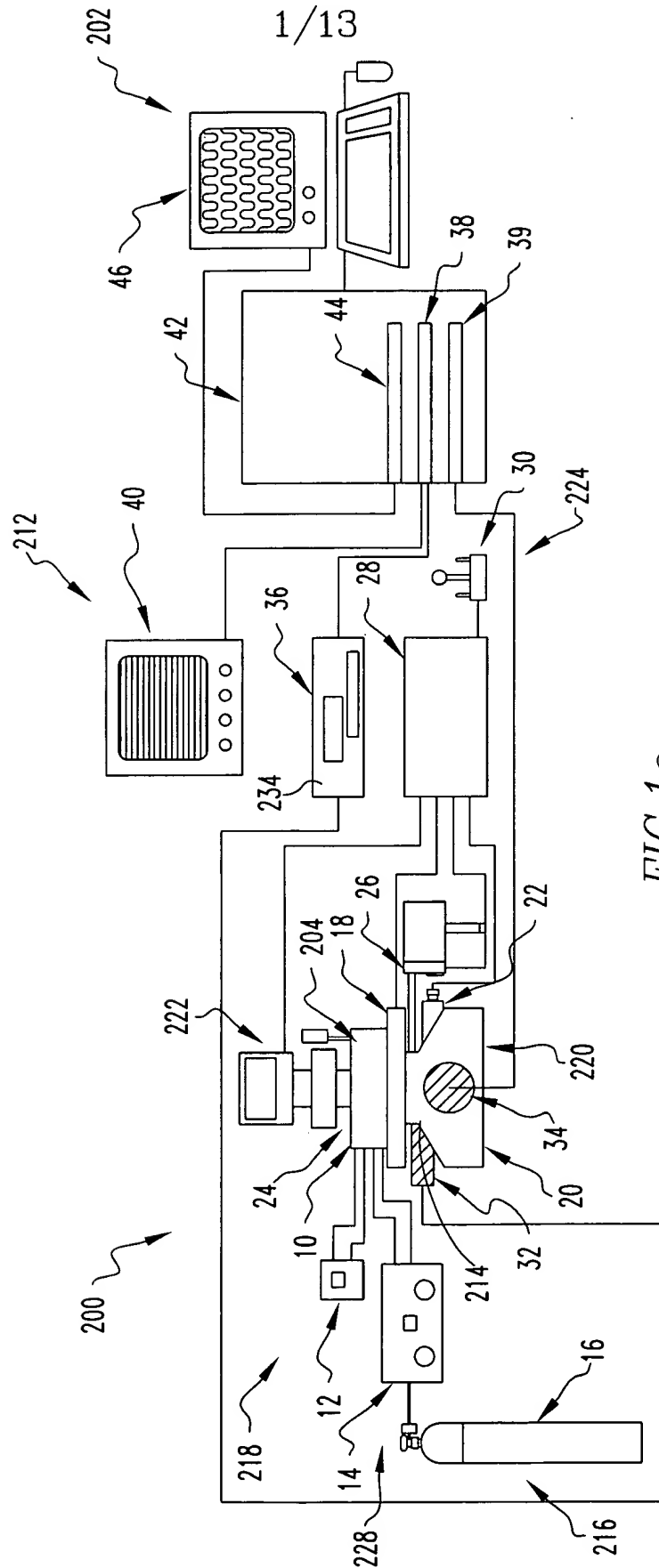


FIG.1a

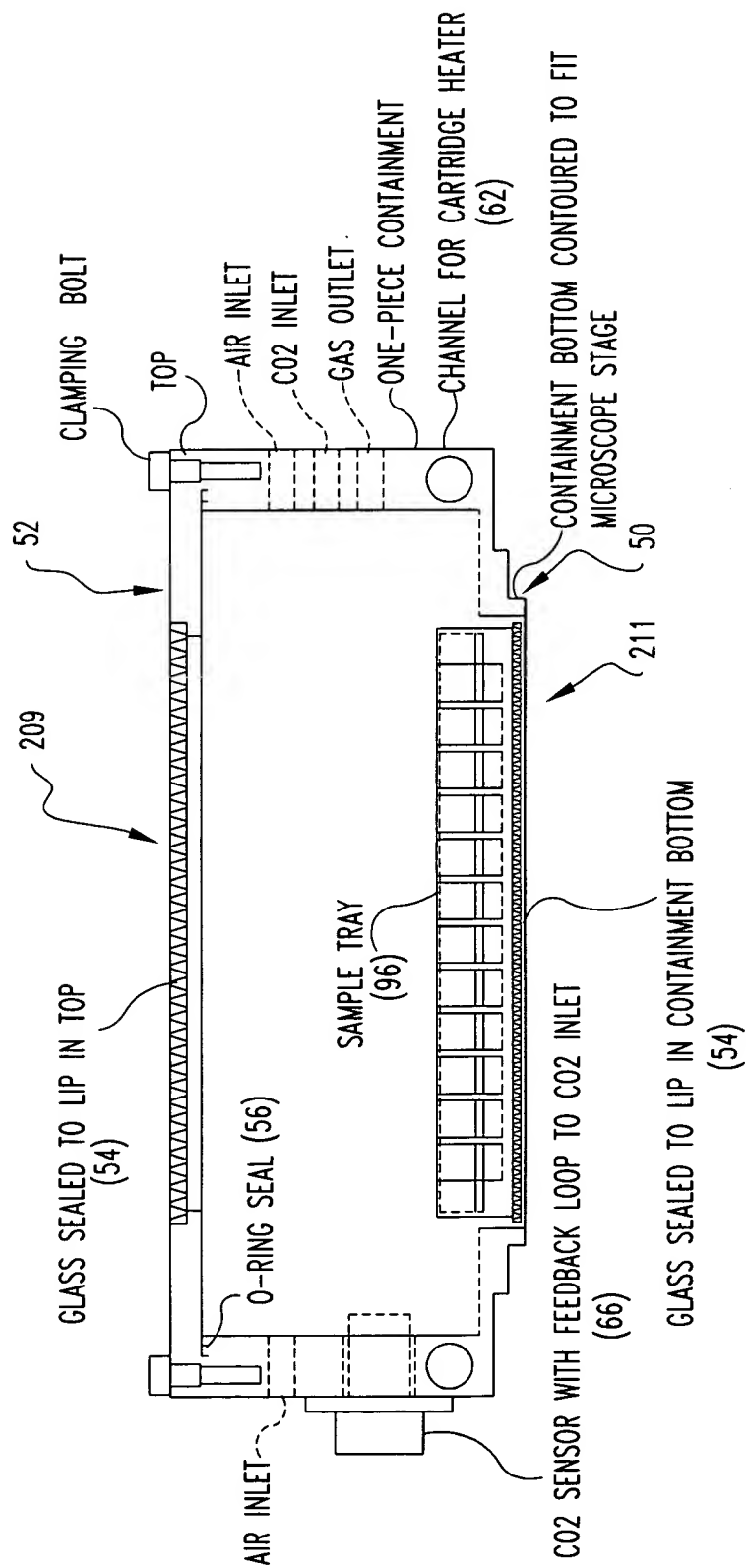


FIG.1b

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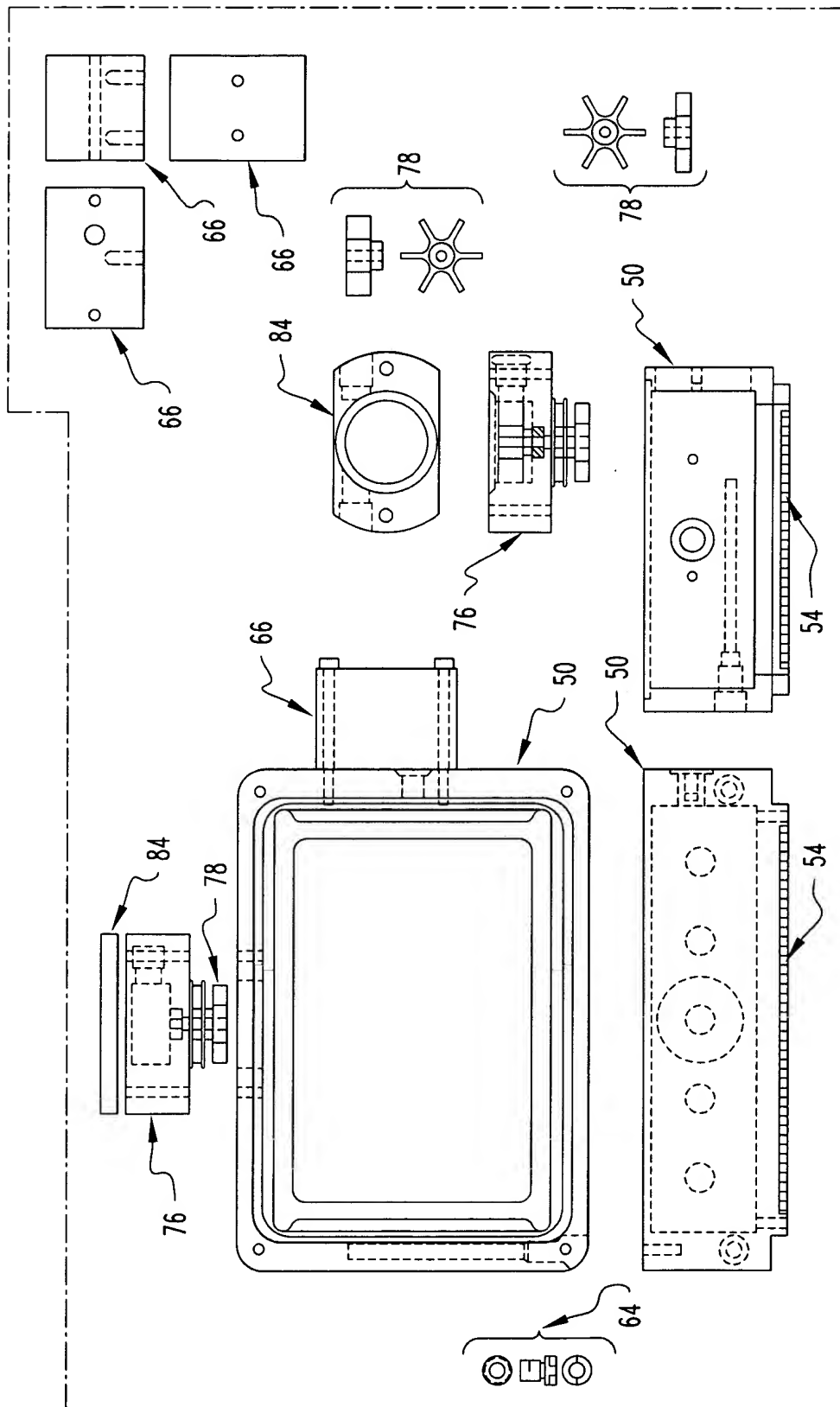


FIG. 1c

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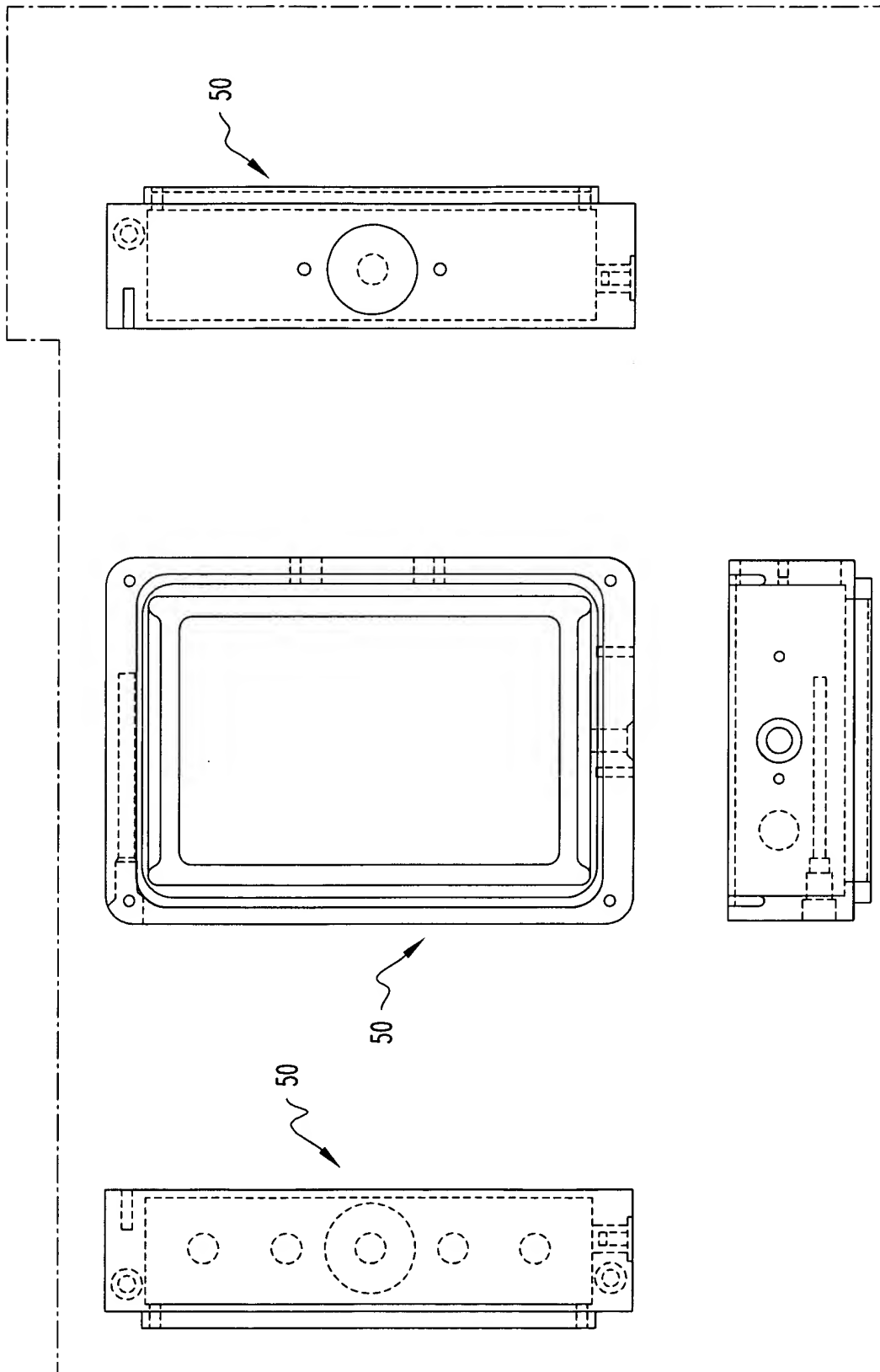


FIG. 1d

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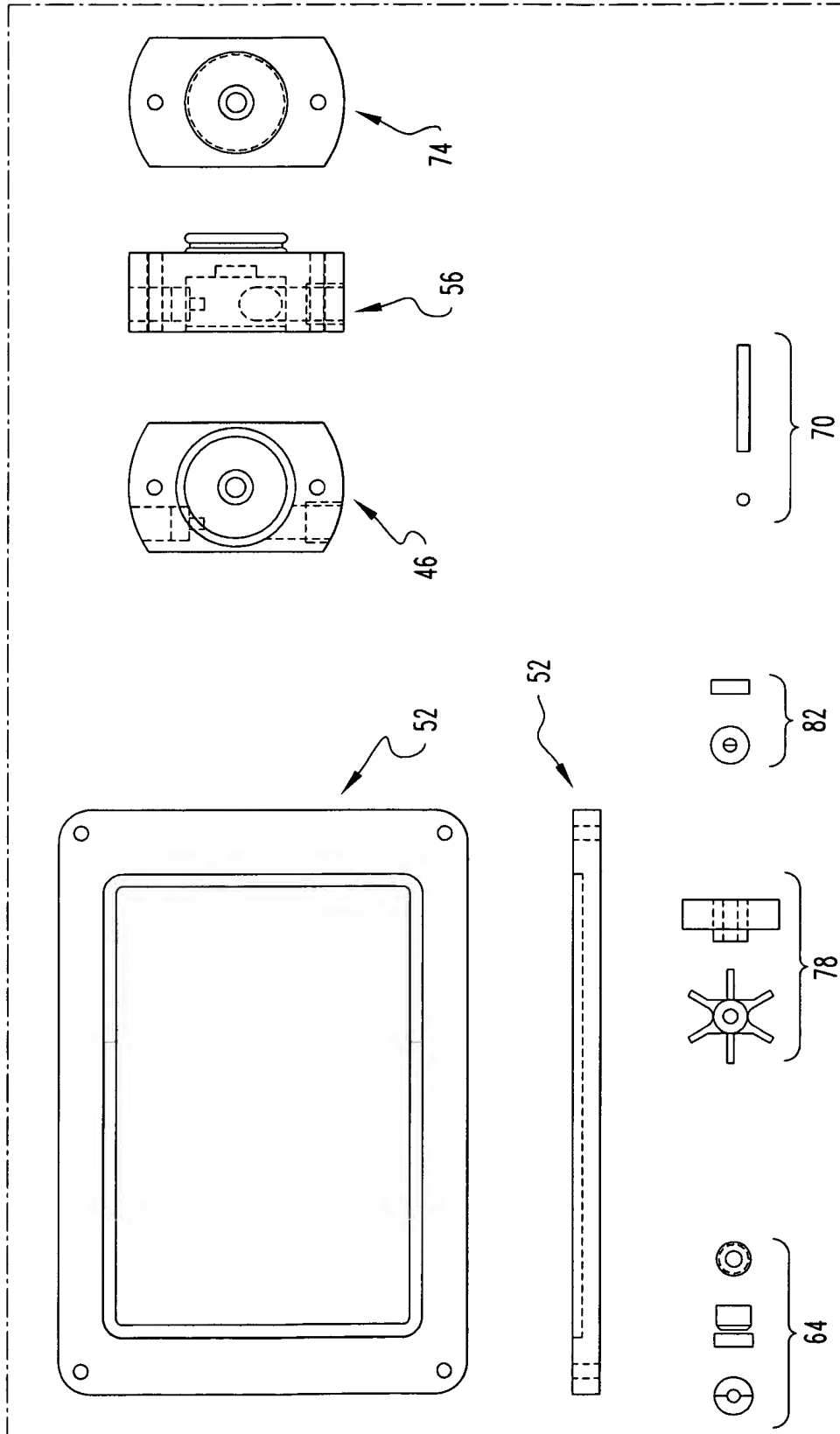


FIG. 1e

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TOTAL NUMBER OF OBJECTS : 4

OBJECT NUMBER	2
X CENTROID	100.000
Y CENTROID	300.000
AREA IN PIXELS	17371
PERIMETER	166.412
PERIM/AREA	1.328
SPHERICITY	0.428
EXCENTRICITY	3.357

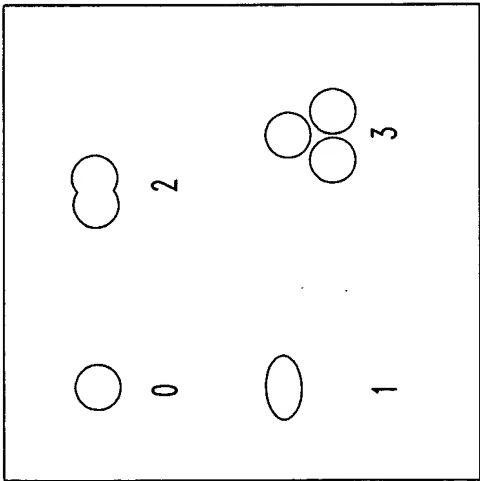
OBJECT NUMBER	3
X CENTROID	375.000
Y CENTROID	334.643
AREA IN PIXELS	61881
PERIMETER	361.060
PERIM/AREA	1.696
SPHERICITY	0.385
EXCENTRICITY	1.033

OBJECT NUMBER	0
X CENTROID	100.000
Y CENTROID	100.000
AREA IN PIXELS	20571
PERIMETER	

OBJECT NUMBER	1
X CENTROID	312.500
	0

SPHERICITY	0.582
EXCENTRICITY	1.721

(B)



(A)

FIG.2 DEMONSTRATION OF PATTERN RECOGNITION FOR MODEL DATA. A. IMAGE OF "MODEL" DATA REPRESENTING 2 SINGLE CELLS, 1 DIVIDING CELL, AND 3 CELLS IN CONTACT. B. STATISTICS DETERMINED BASED ON IMAGE ANALYSIS OBJECTS 0 AND 2 HAVE A RELATIVELY SMALL AREAS AND ARE THE SINGLE CELLS ; OBJECT 1 HAS AN INTERMEDIATE AREA AND IS THE DIVIDING CELL ; OBJECT 4 HAS AN AREA ROUGHLY THREE TIMES AS LARGE AS OBJECTS 0 AND 2 AND IS THE CLUSTER .

FIG.2

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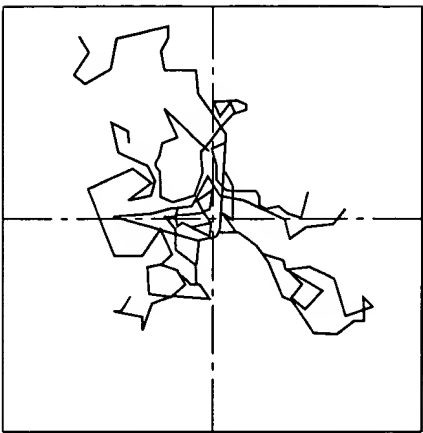


FIG. 3

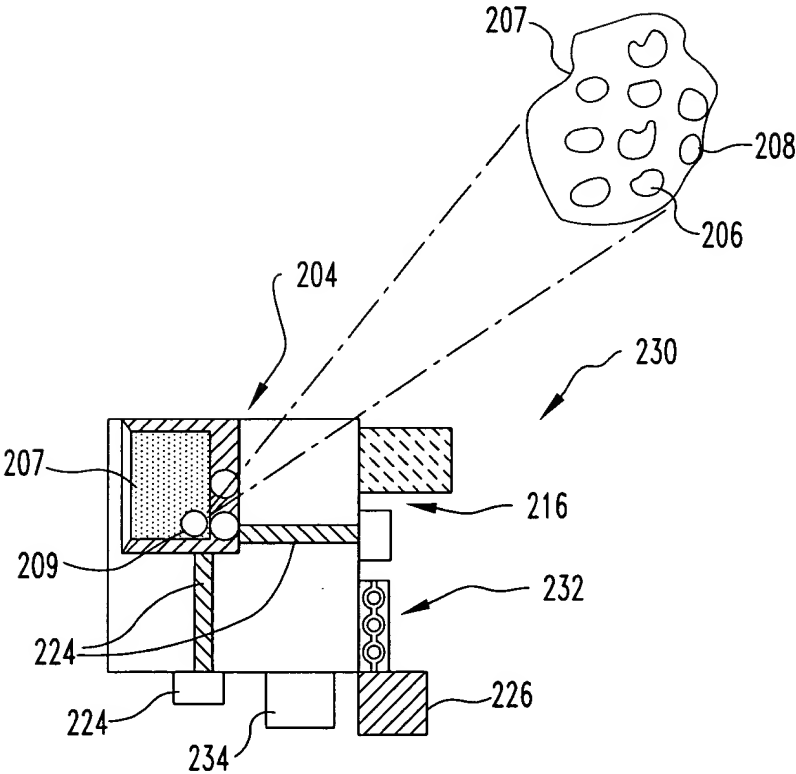


FIG. 4a

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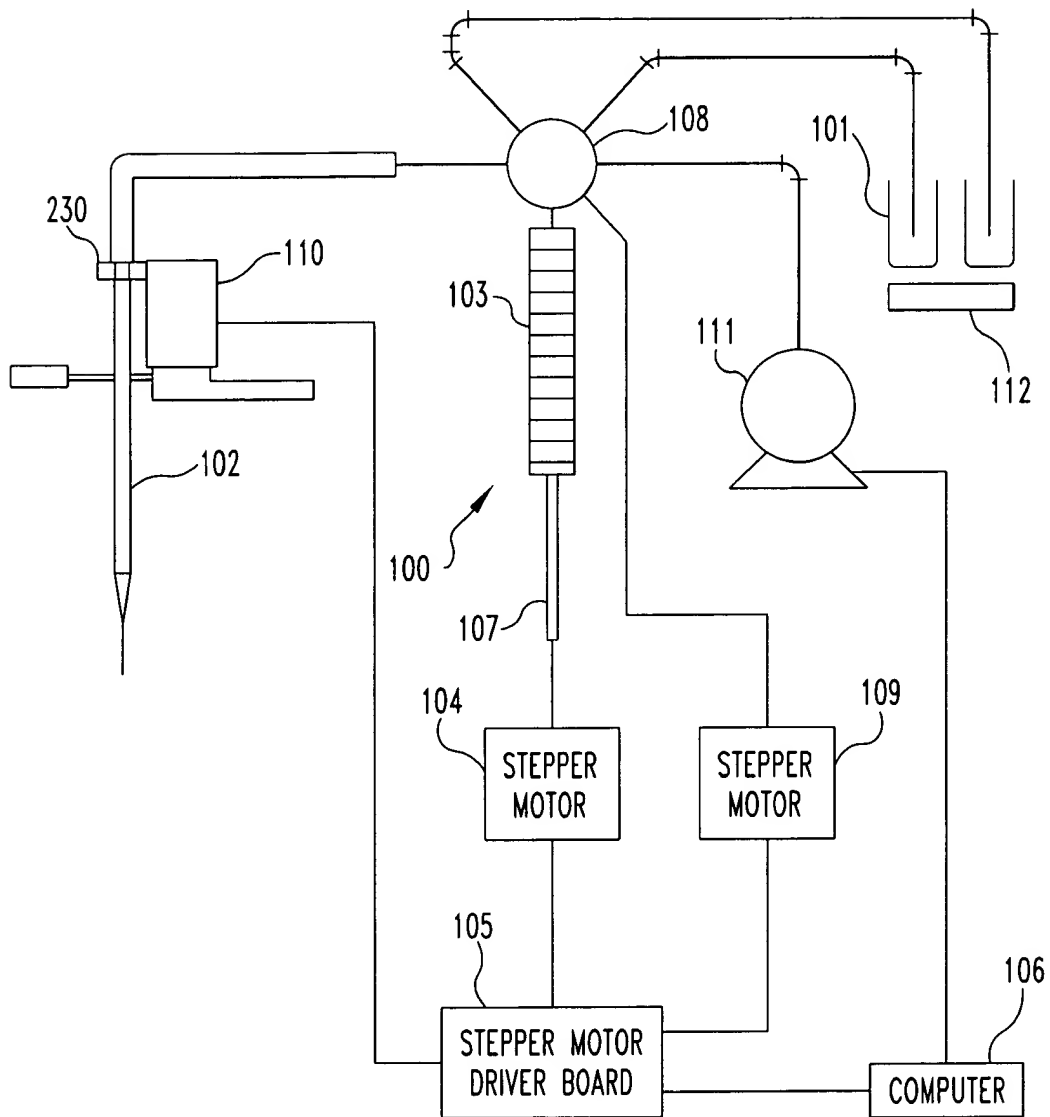


FIG. 4b

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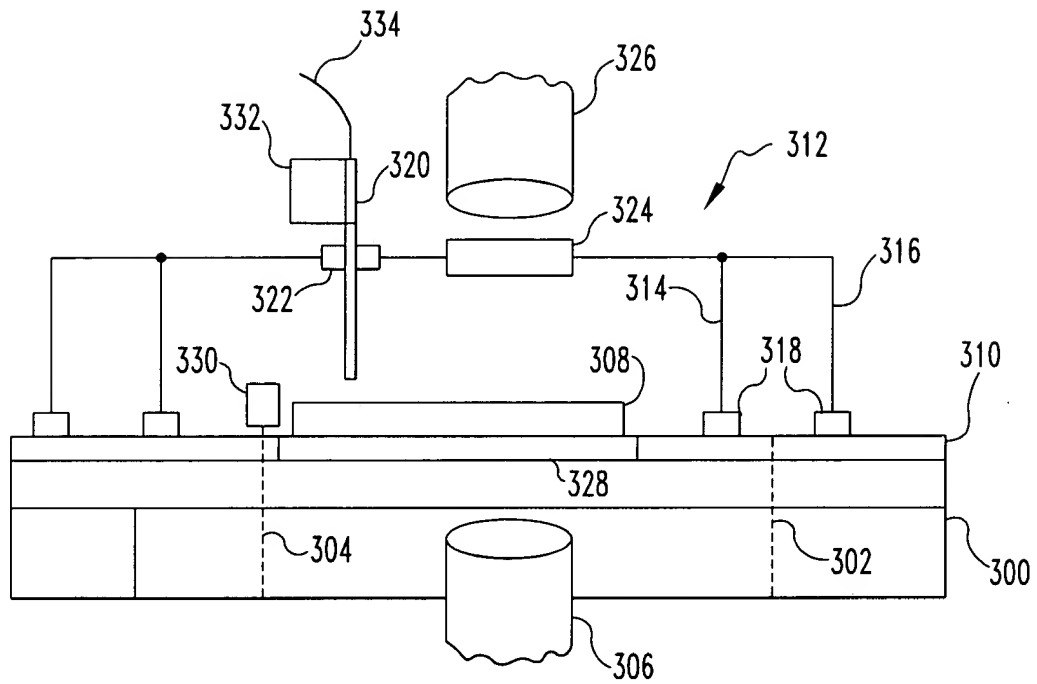


FIG. 4d

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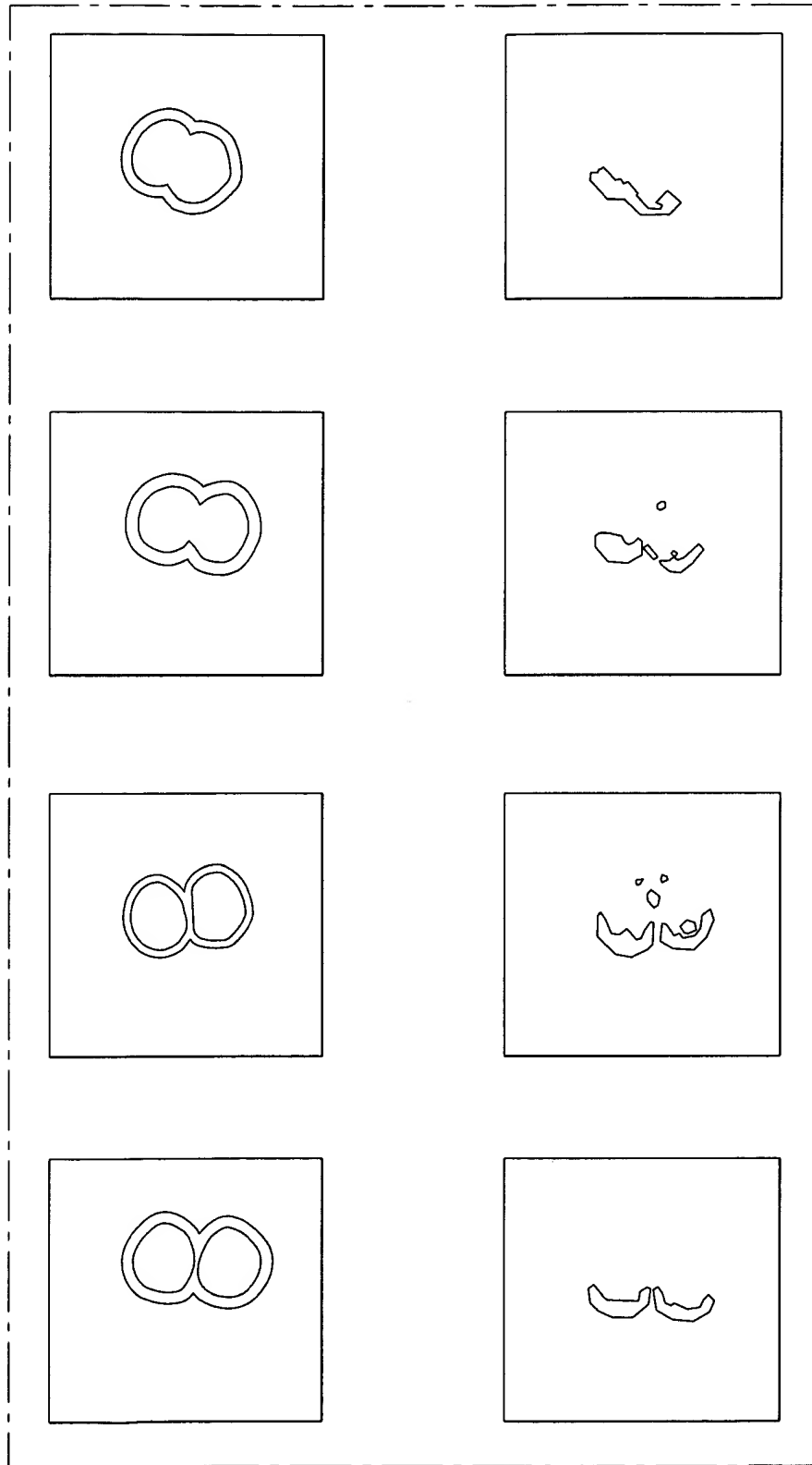


FIG.5

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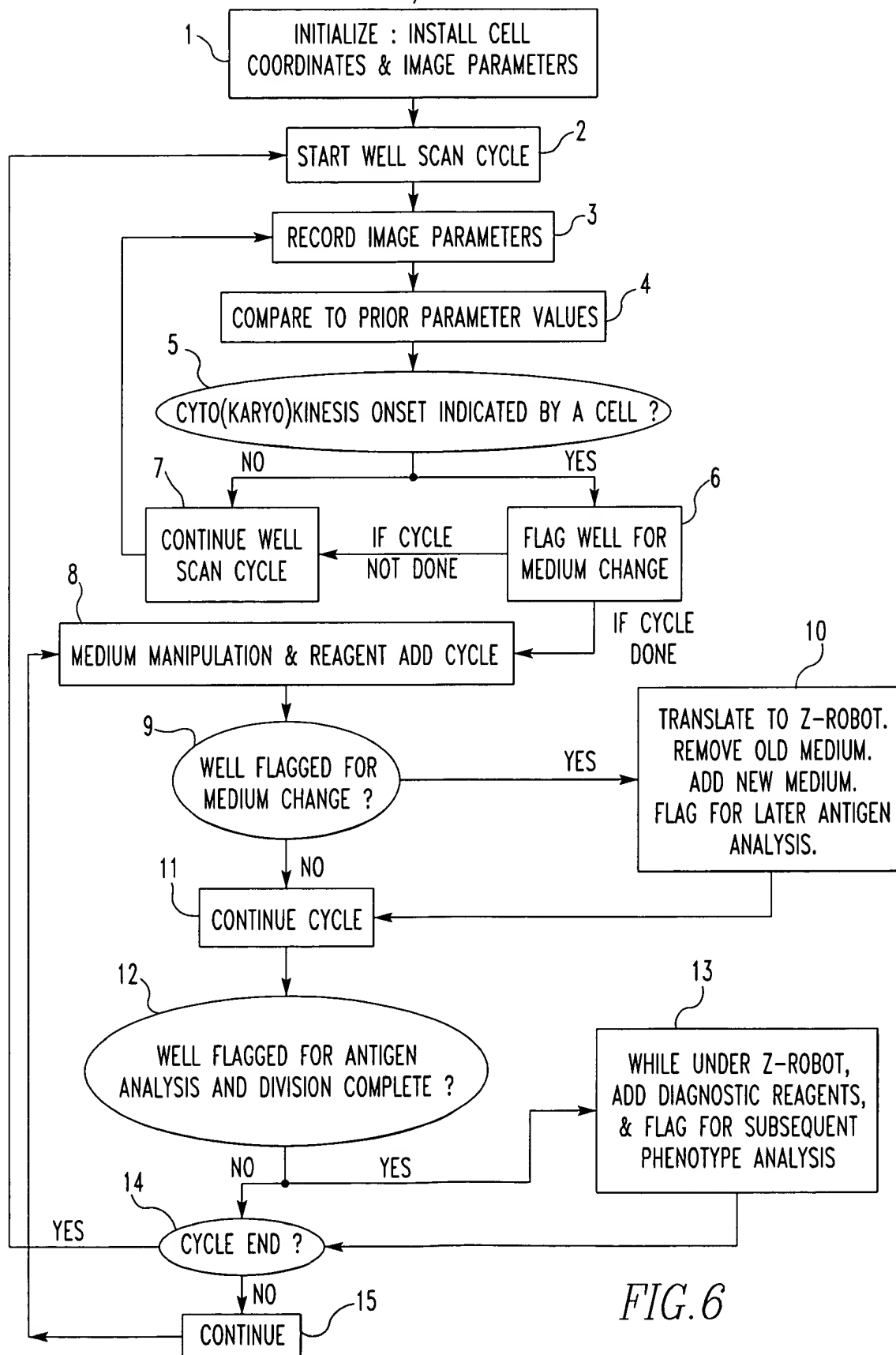


FIG. 6

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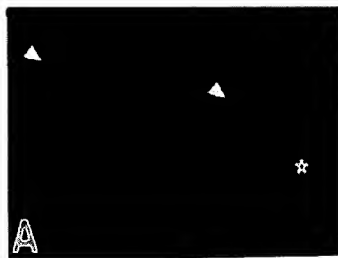


FIG. 7A

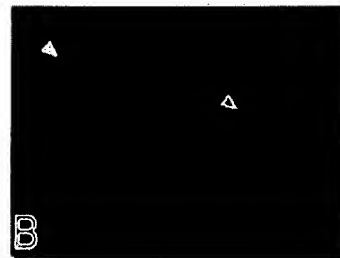


FIG. 7B